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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,176	07/25/2003	Alan Blake	York/102	3876

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IRVINE, CA 92614

EXAMINER
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VALENTI, ANDREA M

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 11/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/627,176

Applicant(s)

BLAKE ET AL.

Examiner

Andrea M. Valenti

Art Unit

3643



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 September 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-46 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-17, 20, 22-40, 43, 45, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,892,199 to Huyler in view of WO 00/49150 to Gong et al.

Regarding Claims 1 and 25, Huyler teaches an aquarium kit comprising: a tank (Huyler Fig. 1 #10) and an excitation light source (Huyler Fig. 11 #164), wherein said light source is mountable on said tank and said light source is configured to emit light. Huyler is silent on an ornamental fish that expresses one or more fluorescent proteins at a level sufficient that said fish fluoresces upon exposure to said excitation light source. However, Gong teaches an ornamental fish that fluoresces when exposed to an excitation light source (Gong abstract). It would have been obvious to one of ordinary skill in the art to modify the teachings of Huyler with the fish taught by Gong since the modification is merely the selection of an alternate equivalent known fish for enhanced aesthetic appeal to the tank.

Regarding Claims 2 and 26, Huyler as modified teaches the light source is a blue light, a fluorescent light or an ultraviolet light (Huyler Col. 10 line 51).

Regarding Claim 3, Huyler as modified teaches an ornamental fish which expresses one or more fluorescent proteins at a level sufficient such that said fish fluoresces upon exposure to said excitation light source (Gong abstract).

Regarding Claims 4 and 27, Huyler as modified teaches an ornamental fish is a transgenic fish comprising one or more chimeric fluorescence genes encoding said one or more fluorescent proteins (Gong abstract).

Regarding Claims 5 and 28, Huyler as modified teaches the light source is a blue light, a fluorescent light or an ultraviolet light (Huyler Col. 10 line 51)..

Regarding Claims 6 and 29, Huyler as modified teaches the ornamental fish comprises a GFP (Gong page 3 line 25).

Regarding Claims 7 and 30, Huyler as modified teaches the ornamental fish comprises a EGFP (Gong abstract).

Regarding Claims 8 and 31, Huyler as modified teaches the ornamental fish comprise: a BFP (Gong page 52 claim 6).

Regarding Claims 9 and 32, Huyler as modified teaches the ornamental fish comprises a coral fluorescent protein (Gong page 52 claim 6).

Regarding Claims 10 and 33, Huyler as modified teaches the ornamental fish comprises a EBFP (Gong page 52 claim 6).

Regarding Claims 11 and 34, Huyler as modified teaches the ornamental fish comprises a YFP or EYFP (Gong page 52 claim 6).

Regarding Claims 12 and 35, Huyler as modified teaches the ornamental fish comprises a CFP or ECFP (Gong page 52 claim 6).

Regarding Claims 13 and 36, Huyler as modified teaches the ornamental fish is a stable transgenic fish line obtained by a method comprising the steps of:

(a) obtaining an ornamental transgenic fish comprising one or more chimeric fluorescence genes positioned under the control of a promoter, wherein the transgenic fish expresses one or more fluorescent proteins encoded by the one or more fluorescence genes at a level sufficient such that said fish fluoresces upon exposure to an excitation light source, and (b) breeding the ornamental transgenic fish with a second fish to obtain offspring; and (c) selecting from said offspring a stable transgenic line that expresses one or more fluorescent proteins (Gong page 21 Example IV, first paragraph and page1 lines 8-9).

Regarding Claims 14 and 37, Huyler as modified teaches the ornamental transgenic fish is a transgenic zebrafish (Gong abstract).

Regarding Claims 15 and 38, Huyler as modified teaches the ornamental transgenic fish is a transgenic zebrafish (Gong abstract).

Regarding Claims 16 and 39, Huyler inherently teaches the second fish is a zebrafish, etc. (Gong page 21 line 15-16).

Regarding Claims 17 and 40, Huyler as modified teaches the second fish is a zebrafish, etc. (Gong page 21 line 15-16).

Regarding Claims 20 and 43, Huyler teaches the ornamental transgenic fish expresses more than one fluorescent protein and said fluorescent proteins have different colors (Huyler).

Art Unit: 3643

Regarding Claims 22, 23, and 45, Huyler as modified teaches the fish is bio-luminescent (Gong abstract).

Regarding Claims 24 and 46, Huyler as modified teaches one or more of gravel, a water heating element, a plant and an aeration unit (Huyler Col. 8 line 22 and 25).

Claims 18, 19, 41, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,892,199 to Huyler as applied to claims 1 and 25 above, and further in view of U.S. Patent No. 5,775,260 to Jansen.

Regarding Claims 18 and 41, Huyler is silent on a second excitation light source which emits light of different wavelength than said excitation light source. However, Jansen teaches a fish tank with a second excitation light source (Jansen #76). It would have been obvious to one of ordinary skill in the art to modify the teachings at the time of the invention for the enhance lighting effects taught by Jansen.

Regarding Claims 19 and 42, Huyler as modified teaches the first excitation light source (Jansen #50) is located on a first side of said tank and said second excitation light source (Jansen #76) is located on the opposite side of said tank.

Claims 21 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,892,199 to Huyler as applied to claim 25 and 3 above, and further in view of U.S. Patent No. 6,474,265 to Powell.

Regarding Claims 21 and 44, Huyler as modified is silent on the tank comprising one or more dividers which divide said tank into two or more chambers. However,

Art Unit: 3643

Powell teaches a tank divider (Powell #14). It would have been obvious to one of ordinary skill in the art to modify the teachings of Huyler with the teachings of Powell at the time of the invention to group certain fishes together (e.g. to prevent undesired breeding).

### ***Response to Arguments***

Applicant's arguments filed 02 September 2004 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Applicant has not positively recited an "optimal" range for the wavelength within the bounds of the claim limitation (i.e. specific wavelength range numbers). The term "optimal" is a broad and relative term. Optimal for one person can mean something entirely different for another person, in other words it is a subjective statement depending merely on personal preferences. Gong teaches that the fluorescent fish fluoresce merely upon exposure to sunlight and daylight (Gong Claim 11). One of ordinary skill in the art might view that placing the fish in a tank with a fluorescent light bulb is sufficient measures to derive an optimal wavelength. Huyler as modified by Gong teaches all of the structural features necessary to fluoresce fish. The step of optimizing a system is an obvious modification to one of ordinary skill in the art through routine tests and experimentation to derive a desired effect. Optimizing a system when all known structural components of the

system are old and notoriously well-known does not present a patentably distinct limitation. Therefore, the examiner maintains that Huyler as modified by Gong does teach an excitation light source configured to emit light at a wavelength selected to be optimal for causing an ornamental fish to fluoresce.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it is extremely old and notoriously well-known to house fish in fish tanks with fluorescent light sources as taught by Huyler. Gong teaches a fish of an ornamental nature. Merely selecting this particular fish to be housed in the apparatus taught by Huyler is an obvious modification to one of ordinary skill in the art for providing a controlled artificial environment for the fish taught by Gong to sustain life while also providing an aesthetic enhancement to the tank of Huyler. Selecting certain fish to house in a fish tank can depend on experimental pursuits or personal preferences. Some people like different varieties of fish in their homes or offices over other varieties.

The examiner maintains the rejection as cited in the above paragraphs because Huyler as modified teaches all of the limitations presented by application. Applicant's claims 2 and 26 claim blue light and fluorescent light in an alternative form 'or' not in



combination. Huyler teaches a fluorescent light and therefore fulfills the limitations of applicant's claim language.

Examiner would like to bring applicant's attention to Col. 1 line 25-30 of U.S. Patent No. 6,265,548 to Pavlakis et al. Pavlakis teaches that it is well-known that fluorescent proteins in fish can be illuminated by blue or ultraviolet light.

Examiner would like to bring applicant's attention to U.S. Patent Pub. No. US 2003/0173525 that teaches a fluorescing fish tank page 5, paragraph [0046], 5 lines from the bottom of the paragraph; page 30 claim 40; page 17 paragraphs [0184], [0185] and [0186].

The examiner maintains that the current claim language does not patentably distinguish over the teachings of the cited prior art.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Japanese Patent JP 11213953 and U.S. Patent Pub. No. US 2003/0173525.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

Art Unit: 3643

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

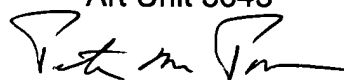
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea M. Valenti whose telephone number is 703-305-3010. The examiner can normally be reached on 7:30am-5pm M-F; Alternating Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 703-308-2574. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Andrea M. Valenti  
Examiner  
Art Unit 3643



Peter M. Poon  
Supervisory Patent Examiner  
Technology Center 3600

18 November 2004

11/18/04